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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,204	06/05/2001	Herbert Heyneker	018501000120	6403 9
28393	7590	10/03/2003	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVE., N.W. WASHINGTON, DC 20005			LUDLOW, JAN M	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/875,204

Applicant(s)

HEYNEKER ET AL.

Examiner

Jan M. Ludlow

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/5/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,8
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “regulator” in claim 17 and the “bellows” in claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### *Claim Rejections - 35 U.S.C. § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Examples of some unclear and indefinite terms used in the claims are:

Claim-1, line 10, recites the limitation “drains liquid”, it is unclear if this is the same “liquid” recited in line 8 of the claim.

Claim 2, lines 7-8, “vacuum source” should be changed to --a vacuum source--.

Line 9, "conduit engagement" should be changed to --a conduit engagement--.

Line 4, recites the limitation "a plurality of liquid conduits", it is not clear from the claim as presently disclosed as to whether this is the same a plurality of liquid conduits recited in line 10.

Claim 13, it is unclear what Applicant means by the recitation "the well being spaced apart about the distance of the wells in row of a 96-well microtiter plate". What wells of a 96-well microtiter plate? Further, the term "about" is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 19, Line 11, the limitation "in the series" is vague and indefinite. What series? Further, the claim recites only "a separate station", not a plurality of stations. Therefore the recitation "each station" is unclear.

Line 12, recites the limitation "the physical steps". There is insufficient antecedent basis for this limitation in the claim. It is unclear as to whether the stations perform a single "physical step" or a series of "physical steps".

Claim 40, the limitation, "predetermined sequence", is vague and indefinite. What predetermined sequence?

Claim 45, line 7, recites the limitation "the parent molecule". There is insufficient antecedent basis for this limitation in the claim.

Line 10, the limitation "in the series" is vague and indefinite. What series?

Lines 9-10, the claim recites only "a station", not a plurality of stations. Therefore the recitation "each station" is unclear.

Claim 45 provides for the use of a station, but, since the claim does not set forth any steps involved in the method/process involved in the physical steps, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Applicant is required to review and correct these errors so that the claims conform with U.S. patent practice.

***Claim Rejections - 35 U.S.C. § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 19-20, 26-29 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris *et al* (USP 4,871,683).

Harris *et al* disclose a reaction system substantially as claimed. The system comprises a carousel 12 with a plurality of reaction mounts 18, with one reaction well 20 arranged on the radius of the carousel, a rotator 74, 76 that rotates the carousel step-wise around the axis, a fluid delivery system 100 that delivers liquid to the reaction well, a drain system 112, 114 that drains

the liquid by differential pressure from the well, a programmable digital computer that controls the system 162 (columns 3-7, Figs 1, 4-5).

6. Claims 1-3, 9, 19-21, 28 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Raysberg *et al* (USP 5,106,583).

Raysberg *et al* teach a carousel 19 with a plurality of reaction mounts 1, with reaction wells 3 arranged on the radius of the carousel, a rotator that rotates the carousel step-wise around the axis (column 4, lines 32-41), a fluid delivery system 33 that delivers liquid to the reaction wells, a drain system 35 that drains the liquid by differential pressure from the wells, a programmable digital computer that controls the system 153 (columns 3-7, Figs 1, 4-5).

***Claim Rejections - 35 U.S.C. § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 4-8, 10-18, 22-27, 29-44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raysberg *et al* (USP 5,106,583) in view of Brennan (USP 5,472,672).

Raysberg *et al* as discussed above, do not teach a fluid dispensing assembly comprising a plurality of dispensing modules mounted at a station, each dispensing module comprising a dispensing head adapted to deliver fluid to the well of a reaction mount, a plurality of fluid dispensers, a plurality of fluid lines. Brennan does teach a fluid dispensing assembly comprising a plurality of dispensing modules mounted at a station, each dispensing module 20 comprising a dispensing head 21 adapted to deliver fluid to the wells of a reaction mount 32, a plurality of fluid dispensers, a plurality of fluid lines 44 (columns 5-15, Figs.1-2). Such a plurality of dispensing modules allows for a large array of wells to be aligned with the dispensing modules for simultaneous disposition of the liquid, thereby increasing throughput (column 6, lines 24-39).

Accordingly, it would have been obvious to one of ordinary skill in the art have included in the analysis system of Raysberg *et al* the plurality of fluid dispensers, as taught by Brennan, in order to allow for an large array of wells to be aligned with the dispensing modules for simultaneous disposition of the liquid, thereby increasing throughput.

### *Conclusion*

10. Note that reference AR has been considered, but was not made of record because it is not a published document.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (703) 308-4039. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jan M. Ludlow  
Primary Examiner  
Art Unit 1743

Jml  
September 29, 2003